Amendments to the CLAIMS:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

LISTING OF CLAIMS:

1. (previously presented) A micromechanical component, comprising:

a substrate;

a diaphragm positioned on the substrate; and

a region arranged underneath the diaphragm and made of a porous material, the region mechanically supporting and thermally insulating the diaphragm.

2. (previously presented) The micromechanical component according to claim 1, wherein:

the porous material is formed from a material of the substrate.

3. (previously presented) The micromechanical component according to claim 1, wherein:

a hollow space is formed underneath the region.

4. (previously presented) The micromechanical component according to claim 1, wherein:

the diaphragm is formed by oxidizing a surface of the substrate and a surface of the region.

5. (previously presented) The micromechanical component according to claim 1, wherein:

the region is completely oxidized.

6. (previously presented) The micromechanical component according to claim 1, further comprising:

a dew point sensor, including:

a thermocouple for measuring a temperature and arranged above the region,

an interdigital capacitor made of the porous material and arranged above the region,

a Peltier element device including at least one Peltier element for heating and

cooling the diaphragm, and

a dew point measuring device for measuring a dew point with the aid of one of the following:

a mirror for optical evaluation, and

a capacitance of the interdigital capacitor and a temperature measured by the thermocouple.

7. (previously presented) The micromechanical component according to claim 1, further comprising:

a heat radiation sensor including:

an absorption device for absorbing a heat radiation provided above the region,

a Peltier element device including at least one Pelter element for generating a thermoelectric voltage corresponding to a temperature difference between a diaphragm region next to the region and a diaphragm region above the region, and

a temperature measuring device for measuring a temperature in the diaphragm region above the region.

8. (previously presented) The micromechanical component according to claim 7, wherein:

the temperature measuring device measures the temperature in the diaphragm region above the region based upon the thermoelectric voltage.

9. (previously presented) The micromechanical component according to claim 7, further comprising:

a control device that operates the Peltier element device to control the temperature in the diaphragm region above the region, wherein:

the temperature measuring device measures the temperature in the diaphragm region above the region based on a regulated output.

10. (restricted/withdrawn) A method for manufacturing a micromechanical component including a substrate and a diaphragm positioned on the substrate, comprising the step of:

providing at least temporarily a region made of a porous material underneath the diaphragm in order to mechanically support and thermally insulate the diaphragm.

11. (restricted/withdrawn) The method according to claim 10, further comprising the step of:
removing the region again after a formation of the diaphragm.

12. (new) A micromechanical component, comprising:
a substrate;
a diaphragm positioned on the substrate;
a region arranged underneath the diaphragm and made of a porous material, the region mechanically supporting and thermally insulating the diaphragm; and
a dew point sensor including:
a thermocouple for measuring a temperature and arranged above the region,
a capacitor made of the porous material and arranged above the region,
a Peltier element device including at least one Peltier element for heating and cooling the diaphragm, and
a dew point measuring device for measuring a dew point.

13. (new) The micromechanical component according to claim 12, wherein:
the porous material is formed from a material of the substrate.

14. (new) The micromechanical component according to claim 12, wherein:
the diaphragm is formed by oxidizing a surface of the substrate and a surface of the region.

15. (new) The micromechanical component according to claim 12, wherein:
a hollow space is formed underneath the region

16. (new) The micromechanical component according to claim 12, wherein:
the region is completely oxidized.

17. (new) The micromechanical component according to claim 12, wherein the porous material is formed from a material of the substrate, a hollow space is formed underneath the region, the diaphragm is formed by oxidizing a surface of the substrate and a surface of the region, and the region is completely oxidized.

18. (new) A micromechanical component, comprising:

a substrate;

a diaphragm positioned on the substrate;

a region arranged underneath the diaphragm and made of a porous material, the region mechanically supporting and thermally insulating the diaphragm; and

a heat radiation sensor including:

an absorption device for absorbing a heat radiation provided above the region,

a Peltier element device including at least one Pelter element for generating a thermoelectric voltage corresponding to a temperature difference between a diaphragm region next to the region and a diaphragm region above the region, and

a temperature measuring device for measuring a temperature in the diaphragm region above the region;

wherein at least one of the following is provided: the porous material is formed from a material of the substrate, a hollow space is formed underneath the region, the diaphragm is formed by oxidizing a surface of the substrate and a surface of the region, and the region is completely oxidized.

19. (new) The micromechanical component according to claim 18, wherein:

the temperature measuring device measures the temperature in the diaphragm region above the region based upon the thermoelectric voltage.

20. (new) The micromechanical component according to claim 18, further comprising:

a control device that operates the Peltier element device to control the temperature in the diaphragm region above the region, wherein the temperature measuring device measures the temperature in the diaphragm region above the region based on a regulated output.